

Definition

Ocular discomfort and pain are symptoms that can be distressing to the patient and physician alike. An awareness of the various types of eye symptoms, their pathogenesis, and clinical significance allows the examiner to narrow the diagnostic possibilities and focus the remainder of data gathering.

The following types of eye discomfort have considerable diagnostic importance (see Table 112.1):

- Foreign body sensation
- Itching
- Photophobia
- Brow ache and deep orbital pain
- Tenderness to touch
- Pain on extraocular motility

Technique

Too often, the patient with ocular symptoms will state that an eye hurts, and the examiner will be unable to help the patient to be more specific in expressing symptoms. This is unfortunate because a great deal of information is lost in not pursuing the ocular history in such cases.

To elicit the symptom of foreign body sensation, the following questions can be asked: Do you feel as if there is a grain of sand or eyelash in your eye that you can't blink away? Are you much more comfortable with your eyes closed? Does it bother you a lot when you open and close your eyes? Similarly, it is useful to ask the patient whether the eye discomfort is more like an eyelash in the eye or a headache around the eye. The answer to this question will often differentiate conditions involving the ocular surface from those associated with deeper intraocular inflammation.

When a patient complains of itching, burning, and tearing, it is helpful to ask: What is your most disturbing symptom? If the answer is itching and the patient states that he cannot stop rubbing his eyes, useful information has been obtained.

Photophobia, or painful spasm with bright light, is usu-

ally obvious when speaking to the patient in a bright room where the patient will display discomfort and guarding ptosis. A confirmatory yet nonleading question might be, Are your eyes noticeably more comfortable in the light or dark?

Basic Science and Clinical Significance

Foreign body sensation can occur when nerves within the tarsal conjunctiva are stimulated by an irregular ocular surface such as an actual foreign body. More often, however, with a corneal abrasion as an example, foreign body sensation is caused by breaks in the corneal epithelial layer exposing sensitive sensory nerves that are painfully stimulated with normal blinking. The purpose of a pressure dressing for a corneal abrasion is to splint the eyelids shut, preventing pain caused by eyelid excursions over exposed corneal nerves.

Itching often suggests Type I hypersensitivity with an eosinophilic response and should be separated from other, less specific ocular surface symptoms such as burning and tearing.

Significant photophobia is usually associated with more severe ocular surface disease or, more likely, intraocular inflammation. The pain induced by exposure to bright light represents ciliary muscle spasm and explains the use of parasympatholytic drops such as atropine in iridocyclitis; painful spasm is prevented by pharmacologically paralyzing the ciliary muscle.

Iridocyclitis is diagnosed by the ophthalmologist with the use of the slit lamp biomicroscope. With this instrument, the presence of inflammatory cells in the anterior chamber and other evidence of increased vascular permeability of the anterior segment of the eye can be appreciated. Photophobia, like perilimbal conjunctival hyperemia, suggests the presence of intraocular inflammation. This must be differentiated from burning and diffuse conjunctival hyperemia, a combination associated with ordinary conjunctivitis.

Pain on extraocular movement is an unusual but highly suggestive symptom of retrobulbar optic neuritis. It is caused by irritation of the extraocular muscles surrounding an inflamed intraorbital optic nerve.

Table 112.1
Diagnostic Ocular Symptoms in Eye Pain

Foreign body sensation	Itching	Photophobia	Deep pain	Tenderness to touch	Pain on eye movement
Foreign body	Allergic conjunctivitis	Iridocyclitis	Acute glaucoma	Episcleritis	Retrobulbar neuritis
Corneal abrasion	Hay fever conjunctivitis	Herpes simplex	Posterior scleritis		
Keratoconjunctivitis sicca	Vernal conjunctivitis	Keratitis			